(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 9 September 2005 (09.09.2005)

PCT

(10) International Publication Number WO 2005/083096 A1

- C12N 15/82, (51) International Patent Classification⁷: A01H 5/00
- (21) International Application Number:

PCT/US2005/006505

- (22) International Filing Date: 23 February 2005 (23.02.2005)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/547,256

23 February 2004 (23.02.2004) US

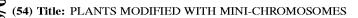
- (71) Applicant (for all designated States except US): CHRO-MATIN, INC. [US/US]; 2255 West Harrison Street, Chicago, IL 60612 (US).
- (72) Inventors; and
- Inventors/Applicants (for US only): ZIELER, Helge [US/US]; 910 W. VanBuren Street, #194, Chicago, IL 60607 (US). JIN, James [US/US]; 837 E. 56th Street, Chicago, IL 60637 (US). MACH, Jennifer [US/US]; 2958 North Kilbourn Avenue, Chicago, IL 60641 (US). RUDGERS, Gary [US/US]; 635 W Buckingham Place, Apt. 3E, Chicago, IL 60657 (US). PREUSS, Daphne [US/US]; 5807 S. Dorchester, Apt. 2E, Chicago, IL 60637 (US). HEIN, Mich, B. [US/US]; 5536 S. Dorchester, 1W, Chicago, IL 60637 (US). COPENHAVER, Gregory [US/US]; 112 Windover Drive, Chapel Hill, NC 27514 (US). KEITH, Kevin [US/US]; 1320 S. Federal Street, Unit F, Chicago, IL 60605 (US).

- (74) Agents: RIN-LAURES, Li-Hsien. et al.; Marshall, Gerstein & Borun LLP, 233 S. Wacker Drive, Suite 6300, Sears Tower, Chicago, IL 60606-6357 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- with (an) indication(s) in relation to deposited biological material furnished under Rule 13bis separately from the

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



(57) Abstract: The invention is generally related to methods of generating plants transformed with novel autonomous mini-chromosomes. Mini-chromosomes with novel compositions and structures are used to transform plants cells which are in turn used to generate the plant. Methods for generating the plant include methods for delivering the mini-chromosome into plant cell to transform the cell, methods for selecting the transformed cell, and methods for isolating plants transformed with the mini-chromosome. Plants generated in the present invention contain novel genes introduced into their genome by integration into existing chromosomes.

